

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-5, without prejudice, and add new claims 6-10, as shown below.

This listing of claims will replace all prior versions and listings of claims in the
Application:

Claims 1-5 (canceled)

Claim 6 (new): A method for depositing a nitride film by chemical vapor deposition using a chemical vapor deposition apparatus of single chamber type having a process chamber comprising an inlet gas line through which process gases are introduced; a shower head for spraying the introduced process gases; a heater on which a wafer is placed; and a vacuum port for discharging the process gases, the method including the steps of:

depositing a first nitride film on the lower, side and upper regions of a patterned trench formed on a wafer by performing a first nitride film deposition process using a process gas at a first mixture ratio of ammonia (NH_3) gas and silane (SiH_4) gas, in the range of 100:1 or more; and

depositing a second nitride film on a surface of the first nitride film in-situ by maintaining a process gas at a second mixture ratio of ammonia gas and silane gas different from the first mixture ratio and in the range of 100:1 or less in order to secondly deposit the nitride film, after depositing the first nitride film, whereby the nitride film is deposited at a greater thickness at the upper region as compared to the side regions and the lower region thereof.

HAYES SOLOWAY P.C.
3450 E. SUNRISE DRIVE
SUITE 140
TUCSON, AZ 85718
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 7 (new): The method as set forth in claim 6, wherein the ammonia gas is introduced into the process chamber at a flow rate of between about 50 and 10000 SCCM, and the silane gas is introduced into the process chamber at a flow rate of between about 2 and 40 SCCM.

Claim 8 (new): The method as set forth in claim 6, wherein a pressure in the chamber is maintained in a range between 10 and 350 torr, and a temperature in the chamber is maintained in [[the]] a range between 600 and 800°C.

Claim 9 (new): The method as set forth in claim 6, including the step of introducing an inert gas into the process chamber at a flow rate between about 100 and 10000 SCCM to dilute the silane and ammonia gases..

Claim 10 (new): The method as set forth in claim 9, wherein the inert gas comprises nitrogen (N₂) gas.

HAYES SOLOWAY P.C.
3450 E. SUNRISE DRIVE
SUITE 140
TUCSON, AZ 85718
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567